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Appl. No. 10/801,617
Amdt. dated February 8, 2006
Reply to Office action of November 8, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A system, comprising:
a plurality of electronic devices adapted to send and receive data, wherein each electronic device uses any one of a plurality of communication protocols; and
a switch comprising a plurality of ports, each port is adapted to couple to an electronic device, wherein each port is configurable for use according to the protocol used by the electronic device coupled thereto,
wherein each port comprises a connector having separate data lines to send and receive data according to each of the plurality communication protocols.
2. (Original) The system of claim 1 wherein the plurality of communication protocols comprise PCI-X and PCI Express.
3. (Original) The system of claim 1 wherein a port is configured for use with an electronic device upon initialization of the electronic device coupled thereto.
4. (Original) The system of claim 1 wherein the protocol used by one of the plurality of ports is configurable by a user of the electronic device coupled to the port.
5. (Original) The system of claim 1 wherein each port is configured automatically according to the protocol of the electronic device coupled thereto.

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6. (Original) The system of claim 1 wherein the plurality of electronic devices comprise at least two devices selected from the group consisting of computers, computer components, and computer peripherals.

7. (Canceled).

8. (Currently amended) A switch adapted to couple to a plurality of devices that each implement any one of a plurality of communication protocols, the switch comprising:

a plurality of ports, wherein each port is adaptable to couple to one of the devices and to receive data from and transmit data to said device and programmable to implement the communication protocol implemented by said device; and

a crossbar coupled to the ports, wherein the crossbar is operable to direct data flow between the ports according to destination information provided with data received by the switch,

wherein each port comprises a plurality of protocol converters that convert data from the communication protocols of the devices to a protocol used by the crossbar and vice versa,

wherein each port comprises logic coupled to the protocol converters and the crossbar, wherein the logic selects a protocol converter and an associated data path to use according to configuration data.

9. (Canceled).

10. (Canceled).

11. (Currently amended) The switch of claim 8-10—wherein a protocol converter is automatically selected for use according to the configuration data.

12. (Currently amended) The switch of claim 8-10—wherein the configuration data is provided according to a user controlled interface.

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13. (Currently amended) The switch of claim 8~~10~~ wherein the logic comprises a bi-directional multiplexer.

14. (Currently amended) The switch of claim 8~~10~~ wherein the logic comprises a configuration register.

15. (Original) The switch of claim 9 wherein each port comprises a serializer/deserializer coupled to at least one of the protocol converters, the serializer/deserializer converts data from a serial data path to a parallel data path and vice versa.

16. (Currently amended) A method, comprising:
receiving data according to any one of a plurality of predetermined protocols;
converting the data from the protocol of the received data to a crossbar protocol;
converting the data from the crossbar protocol to a selected one of the plurality of predetermined protocols; and
outputting the data according to the selected protocol
wherein receiving data according to any one of a plurality of predetermined protocols comprises selecting one of a plurality of data paths, wherein each data path is associated with one of the predetermined protocols and wherein said selecting is user controlled.

17. (Original) The method of claim 16, wherein the protocol of said received data is determined by the protocol used by a device supplying the data, and the selected protocol is determined by the protocol used by a destination device for the output data.

18. (Original) The method of claim 16 wherein receiving data according to any one of a plurality of predetermined protocols comprises serializing or deserializing the data.

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19. (Canceled).
20. (Original) The method of claim 19 wherein said selecting is automated.
21. (Canceled).
22. (Currently amended) A system, comprising:
a plurality of electronic devices adapted to send and receive data, each device using any one of a plurality of communication protocols;
a switch comprising a plurality of ports, each port adapted to couple to one of the plurality of electronic devices, the switch comprises also a crossbar coupled to the ports, wherein each port comprises:
means for receiving data according to any of the plurality of communication protocols;
means for converting the communication protocol of the received data to a crossbar protocol; and
means for converting data from the crossbar protocol to any of the plurality of communication protocols,
means for separately receiving and separately outputting a serial data stream and a parallel data stream.
23. (Original) The system of claim 22 wherein the switch further comprises means for queuing data.
24. (Currently amended) The system of claim 22 wherein each port further comprises means for automatically being that couples to an electronic device is configured to use a communication protocol of the electronic device coupled thereto automatically.
25. (Currently amended) The system of claim 22 further comprising means for configuring each port to use a communication protocol of the electronic device coupled thereto according to a user controlled interface wherein each port that

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~~couples to an electronic device is configured to use a communication protocol of the electronic device according to a user-controlled interface.~~

26. (Currently amended) The system of claim 22 wherein each port further comprises means for selecting one of a plurality of protocol converters and data paths for use with the electronic device coupled thereto~~data received by the switch is associated with a first protocol that is incompatible with a second protocol used to output data from the switch.~~